

GEOMAGNETIC DISTURBANCE WORKSHOP

*INL Meeting Center
Energy Innovation Laboratory
775 University Blvd, Idaho Falls, Idaho*

Tuesday, April 7, 2015

7:30	Registration at INL Meeting Center	
8:00	Welcome	Brent Stacey, Associate Laboratory Director INL National & Homeland Security
8:15	Keynote Presentation – Space Weather & Solar Cycle 24	Chris Balch, Lead Forecaster NOAA Space Weather Prediction Center
Policy & Regulation National and state posture for GMD vulnerability mitigation.		
9:00	Maine Response	Andrea Boland, State Representative Augusta, Maine
9:30	Maine & Wisconsin Commonalities	Gale Nordling, President and CEO Fred Faxvog, Senior Program Director Emprimus
10:15	Break	
10:30	TBD	John Ostrich Department of Energy, Office of Electricity Delivery and Energy Reliability
11:00	GMD Standards	Richard Waggel (Invited) FERC
11:30	EMP SIG/InfraGard	Chuck Manto, Instant Access Network CEO
12:00	Lunch with Shawn West, INL N&HS Research – GMD GIC Monitoring at INL	
Modeling, Analysis, & Harmonics Status of modeling and simulation of GIC caused by GMD on power grid components.		
1:15	Power Systems Modeling	Dr. Tom Overbye, Professor University of Illinois
1:45	Electric Power Grid EMP/GMD/RF Weapon Protection Issues	George H. Baker, Professor Emeritus James Madison University

2:15	Solar Shield Focusing System for Predicting GIC	Chigomezzyo Ngwira Catholic University of America
2:45	Harmonics	Dr. Mack Grady, Professor Baylor University
3:15	Break	
Panel Discussion Standards and research		
3:30	Andrea Boland, Richard Waggel (invited), John Ostrich, Gale Nordling, and Fred Faxvog Facilitated by: Andy Bochman	
4:45	End of Day Workshop Report	Scott McBride INL National & Homeland Security
5:00	Adjourn	

Wednesday, April 8, 2014

8:00	Meet & Greet with Refreshments	
8:15	Morning Kick-off	Andy Bochman INL National & Homeland Security
8:30	Keynote Presentation – EIS Council E-PRO™ Handbook	Dr. Chris Beck, President The Electric Infrastructure Security (EIS) Council
<p style="text-align: center;">Modeling, Analysis, & Harmonics (cont.) Status of modeling and simulation of GIC caused by GMD on power grid components.</p>		
9:00	Modeling & Testing of Transformers Subjected to GIC	Dr. Luis Marti Hydro One / NERC GMDTF
9:45	Transformer Response to GMD	Dr. David Boteler Natural Resources Canada
10:30	<i>Break</i>	
10:45	Auto-Transformer Research	Emanuel Bernabeu PJM
11:30	<i>Lunch with Richard Lordan, EPRI</i>	

Industry Response

How industry is responding to research and standards.

12:45	Managing top risks faced by Critical Infrastructure owners and operators	David Batz, Director, Cyber & Infrastructure Security Edison Electric Institute
1:15	PJM Response	Frank Koza, Executive Director, Operations Support PJM
2:00	ATC's Deployment of the Emprimus/ABB GIC blocker	American Transmission Company (Invited)
2:45	<i>Break</i>	

Panel Discussion

Review, identification of research gaps, and path forward.

3:00	Luis Marti, David Boteler, Emanuel Bernabeu, Frank Koza, David Batz Facilitated by: Scott McBride	
4:15	End of Workshop Report	Scott McBride INL National & Homeland Security
4:30	Walking Tour of INL's Idaho Falls Campus	
5:30	<i>Adjourn</i>	

Thursday, April 9, 2015 – INL Facilities Tour (optional)

7:30	Leave Idaho Falls for the INL Site
------	------------------------------------

1:00	Arrive back in Idaho Falls
------	----------------------------
